

AMENDMENT

Please amend the application without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows.

In the Claims

1-62. (Cancelled)

63. (Currently amended) A lentivirus-based retroviral vector production system for producing a replication defective retroviral vector, wherein the retroviral vector production system comprises one or more nucleic acid sequences encoding a lentivirus-based retroviral vector genome, gag, pol, and an envelope protein, wherein the retroviral vector production system lacks nucleic acid sequences encoding functional tat, and wherein the retroviral vector production system is capable of producing a replication defective retroviral vector.

64. (Previously presented) The retroviral vector production system according to claim 63, wherein tat is absent or disrupted in the vector system and is not functionally expressed in cells.

65. (Previously presented) The retroviral vector production system according to claim 63, further comprising a nucleic acid sequence encoding functionally active rev or RRE-type sequences.

66. (Previously presented) The retroviral vector production system according to claim 65, wherein at least one RRE-type sequence is a constitutive transport element (CTE).

67. (Previously presented) The retroviral vector production system according to claim 66, wherein the CTE is Mason Pfizer monkey virus CTE.

68. (Previously presented) The retroviral vector production system according to claim 63, further comprising at least one nucleotide sequence of interest (NOI).

69. (Previously presented) The retroviral vector production system according to claim 68, wherein the at least one NOI encodes a therapeutic protein or gene product of interest.

70. (Previously presented) A method for producing a replication defective retroviral vector comprising at least one NOI, comprising contacting the retroviral vector production system of claim 68 with a cell, thereby producing the replication defective retroviral vector.

71. (Previously presented) An isolated cell comprising the retroviral vector production system of claim 63.

72. (Previously presented) A composition comprising the retroviral vector production system of claim 63 and a carrier.

73. (Currently amended) The retroviral vector production system according to claim 63, wherein the nucleic acid sequences comprise DNA constructs which encode: (i) the lentivirus-based retroviral vector genome, (ii) gag and pol proteins, and (iii) an envelope protein.

74. (Currently amended) The retroviral vector production system according to claim 63, wherein the lentivirus-based retroviral vector genome comprises an operable promoter.

75. (Previously presented) The retroviral vector production system according to claim 74, wherein the promoter is a non-retroviral promoter.

76. (Previously presented) The retroviral vector production system according to claim 63, wherein the envelope protein is VSV-G.

77. (Previously presented) The retroviral vector production system according to claim 63, wherein the retroviral vector production system is based on HIV-1.

78. (Currently amended) A set of isolated nucleic acid sequences encoding the components of the retroviral vector production system according to claim 63, comprising a DNA construct which encodes the lentivirus-based retroviral vector genome, a DNA construct which encodes gag and pol proteins, and a DNA construct which encodes an envelope protein.

79. (Previously presented) The set of nucleic acid sequences according to claim 78, further comprising a DNA construct which encodes a functionally active rev or RRE-type sequences.

80. (Currently amended) The set of nucleic acid sequences according to claim 78, wherein the DNA construct encoding the lentivirus-based retroviral vector genome further comprises at least one NOI.

81. (Previously presented) A method for producing a replication defective retroviral vector, comprising expressing in a cell the retroviral vector production system according to claim 63, thereby producing the replication defective retroviral vector.